

# ELMAC POWER SUPPLY

MODEL  
PS-2V



115 VOLT  
60 CYCLE

## A UNIVERSAL POWER SUPPLY

*Designed to be used with the ELMAC AF-67 Trans-citer  
or a variety of other applications.*

### SPECIFICATIONS

- 6V. @ 6A. or 12V. @ 3A. AC for filaments.
- 230 volts @ 80 ma. DC output.
- 475 volts @ 170 ma. DC output.
- Separate filament and plate transformers.
- Jones barrier strip for convenient connections.
- Includes a mounted switch which can be used for AC "on-off" or "transmit-receive" switch.
- Cabinet matches AF - 67 Trans-citer.
- Primary circuit fused.
- Separate rectifier and filter circuits for each DC output.
- Both DC supplies use choke input filters.
- Uses 1 - 5U4G and 1 - 6X5GT tube.
- 24 volt tap on filament transformer for control or bias supply.
- Size, 11 1/2" wide, 7" high, 8 1/2" deep. Weight, 26 lbs.

### ACCESSORIES

- |             |   |
|-------------|---|
| CFS-1 Cable | Complete cable, plug, and fanning strip to connect the PS-2V to the AF-67 Trans-citer.                              |
| PTB-1 Kit.  | Includes rectifier, relay and filter condenser to allow "Push-to-talk" operation of your station from an AC supply. |

MULTI - PRODUCTS COMPANY



HAZEL PARK, MICHIGAN

## OPERATING INSTRUCTIONS

**OUTPUT**—The PS-2V power supply has both 6V and 12V AC filament supplies. The 6V output has a rating of 6 amps, and the 12V supply has a rating of 3 amps. max. Both 6V and 12V supplies may be used simultaneously provided the sum of both currents do not exceed 6 amperes. There is also a 24 volt winding on the filament transformer rated at .1 amp. that can be used for control purposes or can be rectified and used as a bias supply. Approximately 36 volts DC can be had in this way.

In addition to the filament supplies, two H.V. supplies are included; one rated at 230 volts @ 80 ma., and one at 475 volts @ 170 ma. Both of these DC outputs can be used simultaneously. Each of these DC outputs has a separate rectifier, choke input filter, and bleeder resistor insuring good regulation.

**CONNECTIONS**—The primary power connection is brought out with a standard cord and plug. All other connections are made to a Jones type barrier terminal strip for ease of connecting wires and flexibility. Terminals "C", "115", "F", and "P" are all part of the primary circuit and are so arranged as to allow various combinations of switching arrangements. Terminals "C" and "115" are HOT at all times. By connecting a switch between terminals "115" and "F" the primary of the filament transformer can be turned "on" and "off". (This function is accomplished by the power "on-off" switch on the AF-67 Trans-citer when using the CFS-1 accessory cable). Connecting a switch between terminals "F" and "P" the plate transformer can be turned "on" and "off". (transmit-receive switch) The switch mounted on the front of the PS-2V power supply can be used for this purpose. The relay of the PTR 1 kit can be used for the "transmit-receive" switch if "push-to-talk" operation is desired.

The switch mounted on the PS-2V power supply is NOT connected to anything as delivered, but is supplied with leads that can be soldered by the customer to any terminal on the strip, depending on function desired.

Additional relays, such as antenna or receiver muting relays, can be connected across terminals "C" and "P", controlling the entire station from the PS-2V power supply.

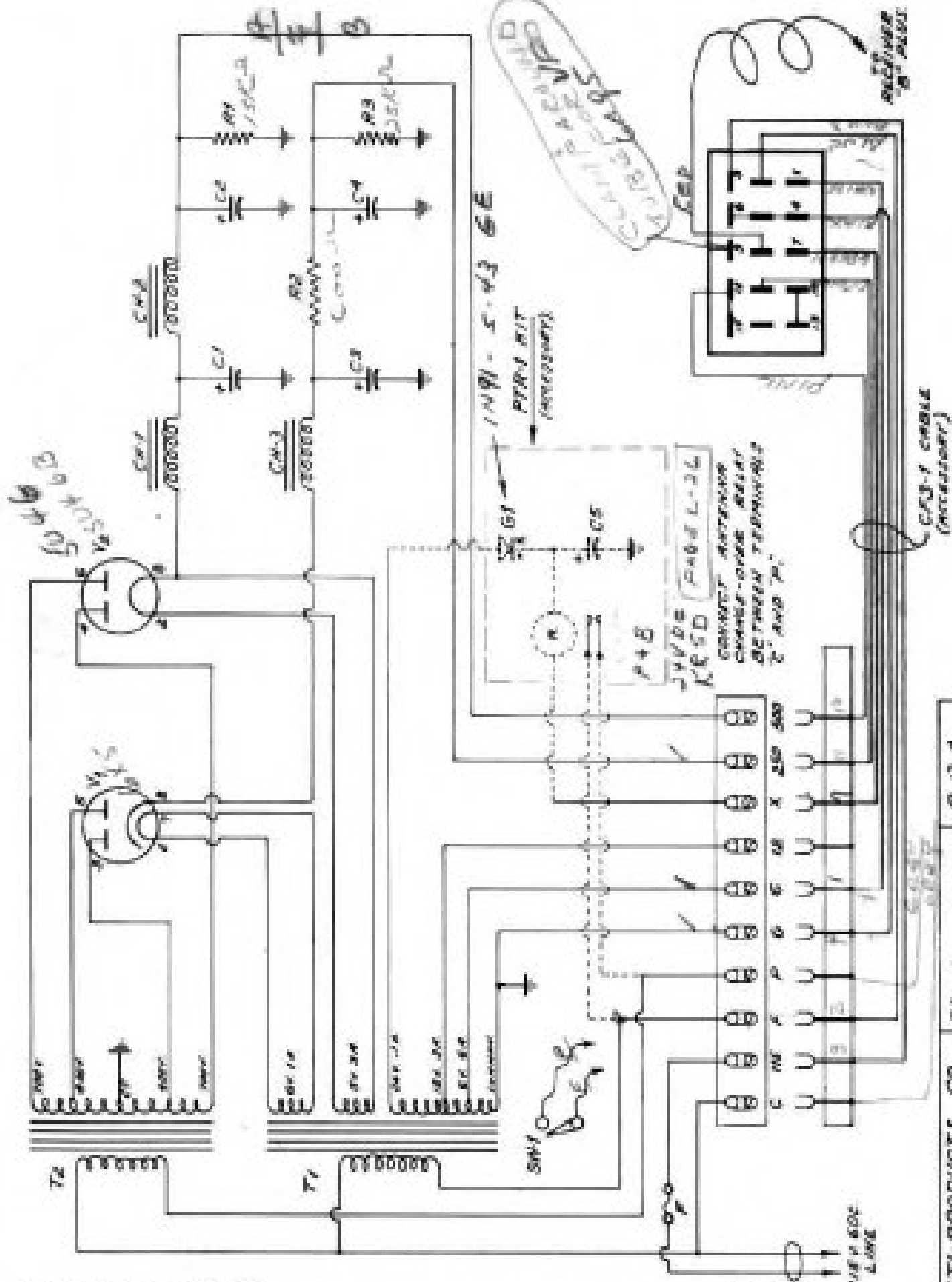
**WARNING** — ALWAYS REMOVE THE CORD AND PLUG FROM THE AC OUTLET WHEN MAKING CONNECTIONS TO THE TERMINAL STRIP OR WORKING ON THIS POWER SUPPLY. TERMINALS "C" AND "115" ARE ALWAYS HOT REGARDLESS OF SWITCH POSITIONS. VOLTAGES EMPLOYED IN THIS POWER SUPPLY CAN BE FATAL.

**CFS-1 Cable**—This cable makes all proper connections between the PS-2V power supply and the AF-67 Trans-citer. This cable permits the power "on-off" switch on the AF-67 to control the primary power to the PS-2V power supply. This cable also allows the push-to-talk switch on the microphone to control the transmit receive function if the PS-2V is equipped with the PTR-1 kit below. The single wire extending from the 15 prong plug should be connected to the receiver "B" plus to supply the VFO in the AF 67 trans-citer for frequency spotting.

**PTR 1 Kit**—A kit consisting of a rectifier, relay, and filter condenser to allow the push-to-talk switch on the microphone to be used as a transmit-receive switch.

**INSTALLATION**—Mount the relay in the two holes provided in the chassis next to the filament transformer. Mount it in such a way that the contact terminals are towards the Jones terminal strip. Wire the "normally open" (relay de-energized) to terminals "F" and "P". Connect one relay coil terminal to the Jones terminal "X". Connect the rectifier G1 between remaining relay coil terminal and the 24 volt tap on the filament transformer. Connect this rectifier exactly as shown on the schematic diagram. Connect the 50 mfd. 50 volt electrolytic condenser from chassis to the junction of the relay coil and the rectifier, observe polarity. The relay should operate when terminal "X" is shorted to the chassis.

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## PARTS LIST

T1	—Filament transformer	Part #121P8
T2	—Plate transformer	Part #121P6
V1	—6X5GT tube	
V2	—5U4G tube	
C1	—8 mfd. 600 volt electrolytic condenser	
C2	—8 mfd. 600 volt electrolytic condenser	
C3	—15 mfd. 450 volt electrolytic condenser	
C4	—25 mfd. 450 volt electrolytic condenser	
CH1	—8 henry 250 ma. choke	Part #121C11
CH2	—8 henry 250 ma. choke	Part #121C11
CH3	—8 henry 100 ma. choke	Part #121C2
R1	—15K ohm 50 watt resistor	
R2	—600 ohm 10 watt resistor	
R3	—25K ohm 10 watt resistor	
F	—5 amp. fuse	
G1	—General Electric 1N91 Fused junction germanium rectifier	
C5	—50 mfd 50 volt electrolytic condenser	
R	—KR5D 24 volt DC coil SPDT Potter Brumfield relay	

## WARRANTY

This power supply has been carefully tested and was shipped from the factory in perfect operating condition. If the unit arrives damaged in transit, it is important that you file claim immediately with the carrier.

THE MULTI-PRODUCTS COMPANY, warranting this power supply to be free from defective materials and workmanship, agrees to repair or replace, without charge, any part or accessory within 90 (ninety) days of the date of sale to the original purchaser. Letter of explanation must precede any article returned under this warranty. Any article returned to the manufacturer shall be shipped prepaid by the owner. Any failure of the equipment following modification by the user, or occurring through application of voltages other than specified by these instructions shall not constitute a defect within this warranty.

The manufacturer reserves the right to make any changes in this unit without obligating itself with respect to prior production.

This warranty shall not be in effect if the owners registration card is not properly filled out as to model no., serial no., date purchased, from whom purchased, and forwarded to the MULTI-PRODUCTS COMPANY.

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